

t82_xxreal_3
(TMH6x9p3uEWkTVhkKcgmFxUR6jLgfikxtnH)

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Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k5_xxreal_3 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xxreal_0 : \iota$ be given. Let $k2_xxreal_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k5_xcmplx_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(v1_xboole_0 X0) \wedge ((X0 \neq X1) \wedge (v1_xboole_0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (\neg(\neg X0 \in k1_numbers) \wedge ((X0 \neq k1_xxreal_0) \wedge (X0 \neq k2_xxreal_0))) \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xreal_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow ((X0 = X1) \Rightarrow (k5_xxreal_3 X0 = k5_xcmplx_0 X1)) \quad (5)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_xcmplx_0 X0)) \Rightarrow ((\neg v1_xboole_0 (k5_xcmplx_0 X0)) \wedge (v1_xcmplx_0 (k5_xcmplx_0 X0))) \quad (6)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (7)$$

Assume the following.

$$k1_xreal_0 = k1_numbers \quad (8)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xcmplx_0 X0) \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (10)$$

Theorem 1

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\neg(k5_xxreal_3 X0 = k6_numbers) \wedge ((X0 \neq k1_xxreal_0) \wedge ((X0 \neq k2_xxreal_0) \wedge (X0 \neq k6_numbers))))$$